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SALTARELLI, DOMINIC D	
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	09/920,723	MCCOSKEY ET AL.	
	Examiner	Art Unit	
	Dominic D. Saltarelli	2623	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *02 December 2007*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-19 and 23-53* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-19 and 23-53* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on November 6, 2007 has been entered.

Response to Arguments

2. Applicant's arguments with respect to claims 1-19 and 23-53 have been considered but are moot in view of the new grounds of rejection.

3. Regarding the use of official notice:

The examiner has taken official notice that it is notoriously well known in the art to route administrative data to users in television systems, such as retrieving and displaying to users their personal account information with a provider or service.

The examiner has taken official notice that the inclusion of an authorization code and password, a user network address, a public encryption key, digital rights management parameters, a preferred content format, and a current hardware configuration, are all notoriously well known to a person of

ordinary skill in the art as parameters commonly included with content requests in digital communication systems. An authorization code and password provide security against unauthorized use of a user terminal, a user's network address allows a server system to know where to route requested information, a public encryption key allow a server system to know which key to use to encrypt content for enhancing security, digital rights management parameters are used by a server system to ensure the digital rights of content providers are protected, a preferred content format allows a server to transmit content in the format that is desired by the requester, and a current hardware configuration allows a server to transmit content in the optimal format for display by the receiver system.

The examiner has taken official notice that it is notoriously well known in the art include search request initiation times and a search request time limit when searching for programming, as this designates a time window for desired programming, such as if a user is searching for prime time evening programming only.

The examiner has taken official notice that it is notoriously well known in the art to modify search results using a user profile, wherein a user profile assists a system in automatically sorting and/or filtering the results of content returned from a completed search. Such modifications include removal of content items which the user may not be interested in and sorting content items so that the most relevant content or content of most interest to the user is placed at the top of a displayed list of search results.

On page 22 of applicant's remarks, applicant refers back to the previous responses filed, wherein applicant attempted to traverse every instance of official notice taken simply by stating that every method and apparatus introduced by the examiner through the use of official notice "may not be well known [to combine]". However, MPEP 2144.03 states, regarding the use of official notice by an examiner, "To adequately traverse such a finding, an applicant must specifically point out the supposed errors in the examiner's action, which would include stating why the noticed fact is not considered to be common knowledge or well-known in the art." Applicant's prior traversals were not adequate because general allegations of patentability are insufficient, and lacked reasons as to why each feature would not be considered common knowledge in the art, the examiner has made the facts noted above to be admitted prior art. MPEP 2144.03 further states "If applicant does not traverse the examiner's assertion of official notice or applicant's traverse is not adequate, the examiner should clearly indicate in the next Office action that the common knowledge or well-known in the art statement is taken to be admitted prior art because applicant either failed to traverse the examiner's assertion of official notice or that the traverse was inadequate." The examiner stated, originally in the office action mailed on June 30, 2006, that the above statements of official notice were facts on the record.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. Claims 1-5 and 30-32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hendricks et al. (5,600,573, of record) [Hendricks] in view of Kenner et al. (5,956,716, of record) [Kenner], Kirsch (5,855,020, of record), Hokanson (6,094,680), and Moore et al. (US 2001/0039546 A1) [Moore].

Regarding claim 1, Hendricks discloses a system for finding and retrieving programming from remote sources in a distributed digital communication network (fig. 1), comprising:

an aggregator (fig. 1, operations center 202), comprising:

a request and results processing server (fig. 2, system controller 312 which controls the functions and output of the system, col. 12, lines 32-45, and receives requests from users, col. 19, lines 36-54),

a replicated content database (Hendricks' storage device 308, col. 9 line 50 – col. 10 line 14), and

a content acquisition server coupled to the request and results processing server (fig. 2, holder 304), wherein the request and results processing server receives a request for a program (col. 19, lines 46-54) and the content

acquisition server receives the program from one of the remote sources (through receiver 300 which connects the operations center to the remote sources, col. 11, lines 24-60).

Hendricks fails to disclose said aggregator implements a screening process for limiting a number of programs retrieved to those programs with a viewing audience above a predetermined threshold, and said request and results processing server comprises a content search suggestion engine, wherein said content search suggestion engine suggests content based on a user's past search criteria or previously downloaded content, a search engine server coupled to the request and results processing server which searches the remote sources for the requested program, wherein the search engine server comprises a search engine processor, a remote content crawler coupled to the search engine processor, wherein the remote content crawler periodically crawls the communications network automatically and retrieves programming information for programs not indexed on the aggregator, a search results processor coupled to eh search engine processor, and a replicated content database.

In an analogous art, Kenner teaches a system for finding and retrieving programming from remote sources in a distributed digital communication network (fig. 4) comprising a search engine server (primary index manager 22, col. 10, lines 10-21, which inherently includes a search engine processor, as it is a computer) which searches the remote sources for requested programs (col. 16, lines 13-38) and a search results processor coupled to the search engine

processor (the "index manager", col. 10, lines 58-64), for the benefit of improved delivery of on demand content (Kenner teaches conventional video on demand systems suffer drawbacks, col. 3, lines 15-38, that distributed system which dynamically searches for content using a search engine server overcomes, col. 3, lines 60-67 and col. 7, lines 23-34).

It would have been obvious at the time to a person of ordinary skill in the art to modify the system disclosed by Hendricks to include a search engine server that includes a search engine processor and a search results processor coupled to the search engine processor which searches the remote sources for the requested program, as taught by Kenner, for the benefit of an improved delivery of on demand content to users by searching a distributed network of sources for requested content, said improvement overcomes the limitations of a centralized on demand system which are less reliable, more costly, and less scalable than a distributed system.

Hendricks and Kenner fail to disclose said aggregator implements a screening process for limiting a number of programs retrieved to those programs with a viewing audience above a predetermined threshold, and said request and results processing server comprises a content search suggestion engine, wherein said content search suggestion engine suggests content based on a user's past search criteria or previously downloaded content, the search engine server comprises a remote content crawler coupled to the search engine processor, and wherein the remote content crawler periodically crawls the

communications network automatically and retrieves programming information for programs not indexed on the aggregator.

In an analogous art, Kirsch teaches a search engine server comprises a remote content crawler coupled to a search engine processor, wherein the remote content crawler periodically crawls a communications network automatically and retrieves programming information for content not indexed (col. 2, lines 53-65; col. 4, lines 1-24; col. 6, lines 33-53; and col. 7, lines 18-65), providing the benefit of discovering new and changing content available over the communications network (col. 4, lines 24-29).

It would have been obvious at the time to a person of ordinary skill in the art to modify the system disclosed by Hendricks and Kenner to include a remote content crawler coupled to a search engine processor, wherein the remote content crawler periodically crawls a communications network automatically and retrieves programming information for content not indexed, as taught by Kirsch, for the benefit of providing an automated system for discovering new and changing content available over the communications network.

Hendricks, Kenner, and Kirsch fail to disclose said aggregator implements a screening process for limiting a number of programs retrieved to those programs with a viewing audience above a predetermined threshold, and said request and results processing server comprises a content search suggestion engine, wherein said content search suggestion engine suggests content based on a user's past search criteria or previously downloaded content,.

In an analogous art, Hokanson discloses a resource manager which controls a resource storage unit which stores video content, wherein the resource manager selectively downloads movie content that meets a predetermined criteria of popularity (a sufficient number of people must request a movie before the resource manager will decide to store a movie in the storage unit, col. 7, lines 56-67), efficiently managing a limited amount of storage space to maximize the availability of content.

It would have been obvious at the time to a person of ordinary skill in the art to modify the system disclosed by Hendricks, Kenner, and Kirsch to include a screening process for limiting a number of programs retrieved to those programs with a viewing audience above a predetermined threshold, as taught by Hokanson, for the benefit of efficiently managing a limited amount of storage space to maximize the availability of content.

Hendricks, Kenner, Kirsch, and Hokanson fail to disclose said request and results processing server comprises a content search suggestion engine, wherein said content search suggestion engine suggests content based on a user's past search criteria or previously downloaded content,.

In an analogous art, Moore discloses a content search suggestion engine which tracks a user's search history and makes content search suggestions based on analysis of said user's past search criteria, (paragraph 0035), improving the experience of content retrieval for a user by locating content of potential interest the user may not have thought to search for specifically.

It would have been obvious at the time to a person of ordinary skill in the art to modify the system disclosed by Hendricks, Kenner, Kirsch, and Hokanson to include a content search suggestion engine which tracks a user's search history and makes content search suggestions based on analysis of said user's past search criteria, as taught by Moore, for the benefit of improving the experience of content retrieval for a user by locating content of potential interest the user may not have thought to search for specifically.

Regarding claim 2, Hendricks, Kenner, Kirsch, Hokanson, and Moore disclose the system of claim 1, wherein the aggregator further comprises:

a decoder and content formatter including a decoder processor that decodes the programming for storage (Hendricks teaches the receiver converts all inputs into a common format prior to storage, which requires first decoding incoming signals, col. 11, lines 25-35); and

a coder and content formatter including a coder processor that formats the programming for delivery to a user terminal (for conversion to an ATM signal upon output, Hendricks, col. 15, lines 8-16).

Regarding claim 3, Hendricks, Kenner, Kirsch, Hokanson, and Moore disclose the system of claim 1, wherein the aggregator further comprises a local content storage that stores programs (Hendricks, fig. 2, storage 308), wherein

the search engine server first searches the local content storage before searching the remote sources (Kenner, col. 9, lines 42-54).

Regarding claim 4, Hendricks, Kenner, Kirsch, Hokanson, and Moore disclose the system of claim 1, wherein the aggregator further comprises:

a communications server coupled to the request and results processing server (Hendricks, fig. 1, cable headend 208), wherein the communications server communicates with user terminals in the digital communication network (Hendricks discloses the headend acts as a network controller, col. 9, lines 21-38); and

a content delivery server coupled to the communications server (Hendricks, cable headend 208), wherein the content deliver server receives the content from the content acquisition server and provides the program to the user terminals (Hendricks discloses the headend also acts as a distribution center, col. 9, lines 21-38).

Regarding claim 5, Hendricks, Kenner, Kirsch, Hokanson, and Moore disclose the system of claim 1, wherein the aggregator further comprises a network gateway that couples the search engine server and the content acquisition server to the remote sources (Hendricks, fig. 2, receiver 300, col. 9, lines 56-60).

Regarding claim 30, Hendricks, Kenner, Kirsch, Hokanson, and Moore disclose the system of claim 1, wherein the content acquisition server comprises a content request processor and router (for processing requested content and routing said content to the storage device, Hendricks, col. 12, lines 4-21) and a remote content download processor, comprising a content buffer, wherein the remote content download processor caches programming content while managing a download connection to the remote content sources over the digital communications network (for preprocessing prior to storage, Hendricks, col. 11, lines 1-18).

Regarding claim 31, Hendricks, Kenner, Kirsch, Hokanson, and Moore disclose the system of claim 1, wherein Hendricks discloses a content delivery server (fig. 2, operations center 202) comprising:

a local content request processor (fig. 2, CAP 316, col. 16, lines 15-28);

a digital rights management processor (col. 20, lines 50-64);

an advertisement processor (col. 17, lines 49-67);

a content delivery processor (col. 10, lines 24-38); and

an encryption processor (col. 18, lines 39-58).

Regarding claim 32, Hendricks, Kenner, Kirsch, Hokanson, and Moore disclose the system of claim 1, wherein Hendricks discloses a system administrator (fig. 2, operations center 202) comprising:

a system administrative server (system controller 312, col. 12, lines 32-44);

a user registration server (user's must be registered with the system in order to track user activity for billing purposes, col. 20 line 50 – col. 21 line 3);

a content fee and copyright billing server (col. 20 line 50 – col. 21 line 3);

a user billing server (col. 20 line 50 – col. 21 line 3);

a content provider registration server (col. 15, lines 47-66, specifically lines 63-66 which state "In addition, source provider data (providers of programs and advertisements) including a director of programs available and expected time of receiving programs is storing in the databases 336."); and

a database administrator (col. 15, lines 47-52).

6. Claims 6-10, 14-19, 23-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hendricks, Kenner, Kirsch, Hokanson, and Moore as applied to claim 1 above, and further in view of Cappi (2002/0038308, of record).

Regarding claim 6, Hendricks, Kenner, Kirsch, Hokanson, and Moore disclose the system of claim 1, wherein the request and results processing server comprises:

a request receiver and router (Hendricks, fig. 4, output equipment control 416 receives video on demand requests and routes control information to the output equipment, col. 13, lines 34-41);

a content download request processor coupled to the request receiver and router (Hendricks, fig. 4, receiver controller 404 controls the operation of the receiver to select which inputs are processed, col. 12, lines 59-65);

a search request processor coupled to the request receiver and router (the combination of Hendricks, Kenner, Kirsch, Hokanson, and Moore includes a search engine for searching content, and thus includes a search request processor to process those search requests made by users, see Kenner, col. 10, lines 10-64, describing the different logic sets executed by the search engine, necessitating the need for a processor to execute said logic); and

a scheduled program prompt and notification processor (Hendricks, fig. 4, CAP interaction module 420 receives scheduling information and video on demand notifications from the CAP, col. 13 line 42 – col. 14 line 14).

Hendricks, Kenner, Kirsch, Hokanson, and Moore fail to disclose a search results form builder.

In an analogous art, Cappi discloses a content search suggestion engine coupled to a search request processor (paragraphs 42 and 43, wherein searches performed by users are augmented with associated terms to improve the search, adding "suggested" terms) and a search results form builder (for presenting retrieved results and data to the user, paragraph 147), providing the benefit of improved searching of user queries.

It would have been obvious at the time to a person of ordinary skill in the art to modify the system of Hendricks, Kenner, Kirsch, Hokanson, and Moore to

include in the content search suggestion engine coupled to the search request processor a search results form builder, as taught by Cappi, for the benefit of providing improved searching of user queries.

Regarding claim 7, Hendricks, Kenner, Kirsch, and Cappi disclose the system of claim 6, wherein the content search suggestion engine comprises:

a suggestion database processor (an inherent feature, as the engine is a computer running application logic to perform the search and indexing described in the Cappi reference, see paragraph 38, thus requiring a processor to run said logic);

a content metadata crawler (retriever of vendor data elements, Cappi, paragraph 58);

a suggestion keyword indexer (Cappi, paragraphs 59-66, which describe the process of identifying keywords returned and integrating them into the master keyword dictionary); and

a suggestion database (master keyword dictionary, Cappi, paragraph 53).

Regarding claim 8, Hendricks, Kenner, Kirsch, Hokanson, Moore, and Cappi disclose the system of claim 7, wherein the suggestion database comprises indexed suggestion keywords (Cappi teaches the suggestion database comprises and index of keywords which are associated with other synonymous terms, paragraph 53) relating a metadata element with a program

content type (Hendricks teaches the descriptive metadata relates to video programming, col. 16, lines 29-37).

Regarding claim 9, Hendricks, Kenner, Kirsch, Hokanson, Moore, and Cappi disclose the system of claim 8, wherein Cappi teaches the content metadata crawler generates a list of available content metadata, and passes the list to the suggestion keyword indexer (the content metadata is the list of vendor data elements sequentially processed by the indexer for integration into the master keyword dictionary as described in paragraphs 58-69, passed from the device which compiled said list to the processor which processes and integrates the information).

Regarding claim 10, Hendricks, Kenner, Kirsch, Hokanson, and Moore, and Cappi disclose the system of claim 9, wherein Cappi teaches the suggestion keyword indexer indexes each metadata element (fig. 12), assigns each metadata element an associated vector quantity (the weights associated with each entry in the master dictionary, paragraph 54), the vector quantity describing the metadata element as a suggestion keyword (paragraph 55), and populates the suggestion database with the indexed suggestion keywords (as shown in fig. 12), wherein an index value indicates a proximity of metadata elements within the suggestion database (weight values indicate relevance of associated synonyms, paragraph 55).

Regarding claim 14, Hendricks, Kenner, Kirsch, Hokanson, Moore, and Cappi disclose the system of claim 6, wherein the search results form builder receives user search results and suggested search results, and produces a search results form (Cappi, paragraph 147), the search results form comprising programming, scheduling, and availability information (Hendricks teaches the content being requested by users is video programming content, and thus the search results would describe the programming titles, scheduling data, col. 7 line 46 – col. 8 line 2, col. 8 lines 30-40, and col. 18 lines 1-38, and availability of said programming, such as whether a viewer is authorized to view said title, col. 19 lines 46-55), and wherein the results form builder provides the search results form to a user terminal (Cappi, paragraph 147).

Regarding claim 15, Hendricks, Kenner, Kirsch, Hokanson, Moore, and Cappi disclose the system of claim 14, wherein the search results form further comprises content metadata and identification information (Hendricks teaches the information regarding programs displayed to users includes names, descriptions, abstracts, and start times, col. 18, lines 1-38).

Regarding claim 16, Hendricks, Kenner, Kirsch, Hokanson, Moore, and Cappi disclose the system of claim 6, but fail to disclose the request receiver and router, in response to a user request, opens a dialog with a database

administrator, retrieves the requesting user's administrative data, and routes the administrative data to the user's terminal.

It is notoriously well known in the art to route administrative data to users in television systems, such as retrieving and displaying to users their personal account information with a provider or service.

It would have been obvious at the time to a person of ordinary skill in the art to modify the system disclosed by Hendricks, Kenner, Hokanson, Moore, and Cappi to include, in response to a user request, opening a dialog with a database administrator, retrieving the requesting user's administrative data, and routing the administrative data to the user's terminal, for the benefit of allowing users to access and view their administrative data, such as account information, passwords, balance information, and the like.

Regarding claim 17, Hendricks, Kenner, Kirsch, Hokanson, Moore, and Cappi disclose the system of claim 6, wherein the content download request processor receives content download requests, authorizes the download requests, and sends the download requests to a content acquisition server (Hendricks teaches first authorizing requests prior to processing them for output, col. 19, lines 47-54).

Regarding claim 18, Hendricks, Kenner, Kirsch, Hokanson, Moore, and Cappi disclose the system of claim 6, wherein the search request processor

comprises search request programs comprising a search term suggestion program (Cappi, paragraphs 108 and 109) and a search term comparison program (Cappi, paragraph 42).

Regarding claim 19, Hendricks, Kenner, Kirsch, Hokanson, Moore, and Cappi disclose the system of claim 6, wherein the scheduled program prompt and notification processor provides a content notification to the user, wherein the content notification comprises a pop-up window, and the wherein the content notification includes an indication of program availability (Hendricks teaches on screen menus are provided to users that indicate the availability of programming, col. 18, lines 1-38).

Regarding claim 23, Hendricks, Kenner, Kirsch, Hokanson, and Moore disclose the system of claim 1, but fail to disclose a specific program request is provided by the user using a search request form.

In an analogous art, Cappi teaches a searching tool wherein specific requests for content are provided by users using a search request form (paragraph 139), providing a "system-friendly" form of a user's screen entries.

It would have been obvious at the time to a person of ordinary skill in the art to modify the system of Hendricks, Kenner, Kirsch, Hokanson, and Moore to include a specific program request is provided by the user using a search request

form, as taught by Cappi, for the benefit of providing requests for data from user's in a form that is readily discernable by the system.

Regarding claim 24, Hendricks, Kenner, Kirsch, Hokanson, Moore, and Cappi disclose the system of claim 23, wherein the search request form comprises:

a user identification and authorization information (for authorizing requests, Hendricks, col. 19, lines 47-54);

a user administration and billing information (for tracking usage and proper billing, Hendricks, col. 20, lines 50-64);

a search request qualification (user queries are modified to include qualification data for subsequent processing, Cappi, paragraph 139);

a search request criteria (the user's actual query, Cappi, paragraph 127); and

a content type (user queries describe the type of content desired, Cappi, paragraph 138).

Regarding claim 25, Hendricks, Kenner, Kirsch, Hokanson, Moore, and Cappi disclose the system of claim 24, wherein the user identification and authorization information comprises a current user identification (an inherent feature of user identification information, as identification information of the user is identifying the use making the request, and is thus referring to the current

user), but fails to include a user network address, a public encryption key, digital rights management parameters, a preferred content format, and a current hardware configuration, wherein the current hardware configuration is provided to a coder and content formatter that formats the search request for delivery to a user terminal.

The inclusion of a user network address, a public encryption key, digital rights management parameters, a preferred content format, and a current hardware configuration, are all notoriously well known to a person of ordinary skill in the art as parameters commonly included with content requests in digital communication systems. A user's network address allows a server system to know where to route requested information, a public encryption key allow a server system to know which key to use to encrypt content for enhancing security, digital rights management parameters are used by a server system to ensure the digital rights of content providers are protected, a preferred content format allows a server to transmit content in the format that is desired by the requester, and a current hardware configuration allows a server to transmit content in the optimal format for display by the receiver system.

It would have been obvious at the time to a person of ordinary skill in the art to modify the system of Hendricks, Kenner, Kirsch, Hokanson, Moore, and Cappi to include a user network address, a public encryption key, digital rights management parameters, a preferred content format, and a current hardware configuration, wherein the current hardware configuration is provided to a coder

and content formatter that formats the search request for delivery to a user terminal, for the benefits of, proper and secure delivery of requested content to the correct user terminal in the preferred and optimized format.

Regarding claim 26, Hendricks, Kenner, Kirsch, Hokanson, Moore, and Cappi disclose the system of claim 24, wherein the search request qualification comprises a list of search request content types (Cappi, paragraph 138, wherein user queries define the types of data desired), but fail to include search request initiation time and a search request time limit.

It is notoriously well known in the art include search request initiation times and a search request time limit when searching for programming, as this designates a time window for desired programming, such as if a user is searching for prime time evening programming only.

It would have been obvious at the time to a person of ordinary skill in the art to modify the system disclosed by Hendricks, Kenner, Kirsch, Hokanson, Moore, and Cappi to include search request initiation time and a search request time limit, for the benefit of a designating a time window to limit a search to when searching for desired programming.

Regarding claims 27 and 28, Hendricks, Kenner, Kirsch, Hokanson, Moore, and Cappi disclose the system of claims 24 and 26, wherein the search request criteria comprises audio/video programming (Hendricks teaches the

system is directed towards the delivery of television programming, col. 5, lines 45-61).

Regarding claim 29, Hendricks, Kenner, Kirsch, Hokanson, and Moore disclose the system of claim 1, wherein the replicated content database comprises a copy of the aggregator local database (Hendricks teaches the storage device 308 comprises a copy of the data stored in holder 304, col. 11, lines 1-18), but fail to disclose the search engine server searches the replicated content database according to a search request form.

In an analogous art, Cappi teaches a system wherein a search engine server searches a content database according to search request form (the search request form dictates the terms of the search, paragraphs 138-140), providing the proper syntax for performing in-depth searches (paragraph 139).

It would have been obvious at the time to a person of ordinary skill in the art to modify the system of Hendricks, Kenner, Kirsch, Hokanson, and Moore to include a search engine server searches a content database according to search request form, as taught by Cappi, for the benefit of providing the proper syntax to the search engine for performing in-depth searches of the index.

7. Claims 11-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hendricks, Kenner, Kirsch, Hokanson, Moore, and Cappi as applied to claim 10 above,

and further in view of Whitman et al. (6,772,150, of record) [Whitman] and Grooters (6,839,705, of record).

Regarding claim 11, Hendricks, Kenner, Kirsch, Hokanson, Moore, and Cappi disclose the system of claim 10, but fail to disclose the suggestion database processor comprises a search engine that searches the suggestion database with user supplied search criteria and user historical and demographic data to produce a suggested search terms list, wherein search terms in the suggested search terms list are used to create an augmented search request form, and wherein the augmented search request form is provided to the search request processor.

In an analogous art, Whitman teaches a search engine the refines user submitted searches by considering user supplied search criteria and user historical data to produce a suggested search terms list, creating an augmented search request form that is submitted to the search request processor (col. 3, lines 39-57, wherein user queries are refined with related search phrases to produce improved search results).

It would have been obvious at the time to a person of ordinary skill in the art to modify the system disclosed by Hendricks, Kenner, Kirsch, Hokanson, Moore, and Cappi to include refining user submitted searches by considering user supplied search criteria and user historical data to produce a suggested search terms list, creating an augmented search request form that is submitted to the search request processor, as taught by Whitman, for the benefit of submitting

search queries that return more relevant and helpful information (col. 3, lines 45-52).

Hendricks, Kenner, Kirsch, Hokanson, Moore, Cappi, and Whitman fail to disclose considering user demographic data when refining the search.

In an analogous art, Grooters teaches refining a user supplied search by considering user's demographic data (col. 6, lines 15-39, wherein a user's profile is also considered when processing a search for requested programming information, said profile containing user supplied demographic data), providing search results that are likely to be specific and relevant to a particular user (col. 6, lines 40-52).

It would have been obvious at the time to a person of ordinary skill in the art to modify the system disclosed by Hendricks, Kenner, Kirsch, Hokanson, Moore, Cappi, and Whitman to include considering user demographic data when refining the search, as taught by Grooters, for the benefit of providing search results that are likely to be specific and relevant to a particular user based on the demographic data of said user.

Regarding claim 12, Hendricks, Kenner, Kirsch, Hokanson, Moore, Cappi, Whitman, and Grooters disclose the system of claim 11, wherein the suggestion database processor prompts the content metadata crawler to search content metadata in the aggregator local database, and wherein the metadata crawler searches content metadata in the aggregator local database and passes

retrieved content metadata to the suggestion keyword indexer as the list of available content metadata (Kirsch, col. 7, lines 18-44).

Regarding claim 13, Hendricks, Kenner, Kirsch, Hokanson, Moore, Cappi, Whitman, and Grooters disclose the system of claim 12, wherein the suggestion database processor uses the proximity of the metadata elements to determine a vector relevance of suggestion keywords to search keywords (Cappi teaches each individual element is also associated in close proximity with synonyms which determine a weight to associate with an element for determining relevance, paragraph 62, as the synonyms help determine how close an element being considered is to the element it is being compared to).

8. Claims 33, 39-44, 46, 47, 50, 51, and 53 are rejected under 35 U.S.C. 103(a) as being anticipated by Kenner in view of Kirsch, Hokanson, and Moore.

Regarding claim 33, Kenner discloses a method using a video and multimedia aggregator (fig. 4, PIM 64) for finding and retrieving program content from remote sources in a distributed digital communication network (col. 7, lines 14-35), comprising:

receiving a program content search request from a user terminal in the network (col. 8, lines 14-25);

searching a local content database based on the program content search request (col. 9, lines 42-54);

searching remote content databases based on the program content search request (col. 10, lines 10-21 and lines 58-64);

identifying programs based on the searches (col. 16, lines 14-38); and

acquiring identified programs from the local content database (col. 8 line 66 – col. 9 line 14) or remote databases (col. 16, lines 39-61).

Kenner fails to disclose suggesting additional content via a content search suggestion engine based on a user's past search criteria or previously downloaded content, only acquiring programs if said one or more identified programs has a viewing audience above a predetermined threshold, and periodically crawling the communications network automatically and retrieving programming information for programs not indexed on the aggregator.

In an analogous art, Kirsch teaches a searching system that comprises a remote content crawler which periodically crawls a communications network automatically and retrieves programming information for content not indexed (col. 2, lines 53-65; col. 4, lines 1-24; col. 6, lines 33-53; and col. 7, lines 18-65), providing the benefit of discovering new and changing content available over the communications network (col. 4, lines 24-29).

It would have been obvious at the time to a person of ordinary skill in the art to modify the method disclosed by Kenner to include a remote content crawler coupled to a search engine processor, wherein the remote content crawler periodically crawls a communications network automatically and retrieves programming information for content not indexed, as taught by Kirsch, for the

benefit of providing an automated system for discovering new and changing content available over the communications network.

Kenner and Kirsch fail to disclose suggesting additional content via a content search suggestion engine based on a user's past search criteria or previously downloaded content and only acquiring programs if said one or more identified programs has a viewing audience above a predetermined threshold.

In an analogous art, Hokanson discloses a resource manager which controls a resource storage unit which stores video content, wherein the resource manager selectively downloads movie content that meets a predetermined criteria of popularity (a sufficient number of people must request a movie before the resource manager will decide to store a movie in the storage unit, col. 7, lines 56-67), efficiently managing a limited amount of storage space to maximize the availability of content.

It would have been obvious at the time to a person of ordinary skill in the art to modify the method disclosed by Kenner and Kirsch to include a screening process such that only programs with a viewing audience above a predetermined threshold are retreived, as taught by Hokanson, for the benefit of efficiently managing a limited amount of storage space to maximize the availability of content.

Kenner, Kirsch, and Hokanson fail to disclose suggesting additional content via a content search suggestion engine based on a user's past search criteria or previously downloaded content.

In an analogous art, Moore discloses a content search suggestion engine which tracks a user's search history and makes content search suggestions based on analysis of said user's past search criteria, (paragraph 0035), improving the experience of content retrieval for a user by locating content of potential interest the user may not have thought to search for specifically.

It would have been obvious at the time to a person of ordinary skill in the art to modify the method disclosed by Kenner, Kirsch, and Hokanson to include making content search suggestions based on analysis of said user's past search criteria, as taught by Moore, for the benefit of improving the experience of content retrieval for a user by locating content of potential interest the user may not have thought to search for specifically.

Regarding claim 39, Kenner, Kirsch, Hokanson, and Moore disclose the method of claim 33, wherein Kenner additionally discloses decoding the programs received from the remote databases, storing the decoded programs, and encoding the stored programs and the programs form the local content database for delivery to the user terminal (when transferring files between systems, such as from a remote SRU to the local SRU, the files are encoded using a network protocol, col. 11, lines 52-64, and so when a file is transferred from the remote SRU to the local SRU, it is encoded in the appropriate network protocol and decoded upon reception, stored as a compressed file, col. 8, lines

44-65, and subsequently encoded again into a network protocol when transferred from the local SRU to the user terminal).

Regarding claim 40, Kenner, Kirsch, Hokanson, and Moore disclose the method of claim 33, wherein Kenner additionally discloses the remote sources are coupled to the user terminal through a wide area distribution system (as shown in fig. 4, wherein the Internet 56 connects the remote sources 66 and 92 with the user terminal 50), wherein the program content is delivered directly to a user terminal thereby bypassing the aggregator (delivery of content is performed by DSI components, which are separate from the PIM itself, col. 12, lines 4-32).

Regarding claim 41, Kenner, Kirsch, Hokanson, and Moore disclose the method of claim 33, wherein Kenner additionally discloses the remote sources are coupled to the aggregator through a network gateway (the remote sources and aggregator [PIM] are all connected via the Internet and thus the PIM includes a network gateway linking it to the Internet, and subsequently to the remote sources, because it is an inherent feature of any device connected to the Internet to be connected through some form of network interface that provides a gateway to the world wide distributed network the Internet represents).

Regarding claim 42, Kenner, Kirsch, Hokanson, and Moore disclose the method of claim 33, wherein Kenner additionally discloses providing a search

results list, the search results list including information related to the identified programs (col. 16, lines 34-38).

Regarding claim 43, Kenner, Kirsch, Hokanson, and Moore disclose the method of claim 33, wherein the aggregator comprises identifying program content based on completed search requests (col. 16, lines 34-38) and acquiring programs based on the identified program content (col. 16, lines 39-61), wherein the acquired programs are stored in an aggregator database (each SRU is itself an aggregator of video clips, col. 15 line 58 – col. 16 line 10), wherein the aggregator comprises a content metadata crawler that crawls the remote sources (Kirsch, col. 7, lines 18-44).

Regarding claim 44, Kenner, Kirsch, Hokanson, and Moore disclose the method of claim 43, but fail to disclose the identifying step further comprises using user profile information.

It is notoriously well known in the art to modify search results using a user profile, wherein a user profile assists a system in automatically sorting and/or filtering the results of content returned from a completed search. Such modifications include removal of content items which the user may not be interested in and sorting content items so that the most relevant content or content of most interest to the user is placed at the top of a displayed list of search results.

It would have been obvious at the time to a person of ordinary skill in the art to modify the method disclosed by Kenner, Kirsch, Hokanson, and Moore to include using user profile information in the identifying step, for the benefit of automatically sorting and/or filtering the results of content returned from a completed search, displaying results to a user that are customized for said user.

Regarding claim 46, Kenner, Kirsch, Hokanson, and Moore disclose the method of claim 33, and Kenner additionally discloses verifying a user is authorized to request the searches (col. 24, lines 15-58).

Regarding claim 47, Kenner, Kirsch, Hokanson, and Moore disclose the method of claim 46, and Kenner additionally discloses when the user is not authorized to request the searches, notifying the user terminal that the search request is denied (col. 24, lines 59-67).

Regarding claim 50, Kenner discloses a video and multimedia aggregator for use in a distributed digital communication network (fig. 4), comprising:

means for requesting a search for program content (col. 8, lines 14-33);

means for processing the search request (col. 9, lines 42-54 and col. 10, lines 10-21);

means for searching local and remote sources for the program content (col. 16, lines 13-38);

means for acquiring metadata related to the program content (col. 16, lines 34-38);

means for displaying the acquired metadata (col. 16, lines 39-42);

means for receiving a program content download request (col. 16 line 42);

means for acquiring the program content in the download request (col. 16, lines 39-61);

means for displaying the acquired program content at a user terminal (col. 8, lines 34-43); and

means for billing a user of the user terminal (col. 6, lines 17-26).

Kenner fails to disclose means for suggesting content based on a user's past search criteria or previously downloaded content, the means for acquiring content only acquires if said program content has a viewing audience above a predetermined threshold, and means for periodically crawling the communications network automatically thereby retrieving programming information for programs not indexed on the aggregator.

In an analogous art, Kirsch teaches a searching system that comprises a remote content crawler which periodically crawls a communications network automatically and retrieves programming information for content not indexed (col. 2, lines 53-65; col. 4, lines 1-24; col. 6, lines 33-53; and col. 7, lines 18-65), providing the benefit of discovering new and changing content available over the communications network (col. 4, lines 24-29).

It would have been obvious at the time to a person of ordinary skill in the art to modify the aggregator disclosed by Kenner to include a remote content crawler coupled to a search engine processor, wherein the remote content crawler periodically crawls a communications network automatically and retrieves programming information for content not indexed, as taught by Kirsch, for the benefit of providing an automated system for discovering new and changing content available over the communications network.

Kenner and Kirsch fail to disclose means for suggesting content based on a user's past search criteria or previously downloaded content and the means for acquiring content only acquires if said program content has a viewing audience above a predetermined threshold.

In an analogous art, Hokanson discloses a resource manager which controls a resource storage unit which stores video content, wherein the resource manager selectively downloads movie content that meets a predetermined criteria of popularity (a sufficient number of people must request a movie before the resource manager will decide to store a movie in the storage unit, col. 7, lines 56-67), efficiently managing a limited amount of storage space to maximize the availability of content.

It would have been obvious at the time to a person of ordinary skill in the art to modify the aggregator disclosed by Kenner and Kirsch to include the means for acquiring content only acquires if said program content has a viewing audience above a predetermined threshold, as taught by Hokanson, for the

benefit of efficiently managing a limited amount of storage space to maximize the availability of content.

Kenner, Kirsch, and Hokanson fail to disclose means for suggesting content based on a user's past search criteria or previously downloaded content.

In an analogous art, Moore discloses a content search suggestion engine which tracks a user's search history and makes content search suggestions based on analysis of said user's past search criteria, (paragraph 0035), improving the experience of content retrieval for a user by locating content of potential interest the user may not have thought to search for specifically.

It would have been obvious at the time to a person of ordinary skill in the art to modify the apparatus disclosed by Kenner, Kirsch, and Hokanson to include means for suggesting content based on a user's past search criteria, as taught by Moore, for the benefit of improving the experience of content retrieval for a user by locating content of potential interest the user may not have thought to search for specifically.

Regarding claim 51, Kenner, Kirsch, Hokanson, and Moore disclose the aggregator of claim 50, wherein the means for requesting the search comprises means for receiving and routing the search request (Kenner, col. 9, lines 42-54).

Regarding claim 53, Kenner, Kirsch, Hokanson, and Moore disclose the aggregator of claim 53, and additionally discloses means for providing user fees to a content provider (Kenner, col. 6, lines 17-26).

9. Claims 34-36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kenner, Kirsch, Hokanson, and Moore as applied to claim 33 above, and further in view of Whitman.

Regarding claim 34, Kenner, Kirsch, Hokanson, and Moore disclose the method of claim 33, wherein the step of receiving the program search request comprises receiving search criteria from the user terminal (Kenner, col. 8, lines 14-25) and processing the received search criteria into a search request form (Kenner, col. 9, lines 19-30).

Kenner, Kirsch, Hokanson, and Moore fail to disclose logging the search criteria into a user local database.

In an analogous art, Whitman teaches a search and retrieval system (fig. 1) wherein user submitted search criteria are logged into a user local database, providing the system with user history information regarding searches performed which allow the system to suggest helpful search terms in the future (col. 3, lines 39-57).

It would have been obvious at the time to a person of ordinary skill in the art to modify the method disclosed by Kenner, Kirsch, Hokanson, and Moore to include logging the search criteria into a user local database, as taught by

Whitman, for the benefit of tracking user histories of searches in order to suggest helpful search terms in the future.

Regarding claim 35, Kenner, Kirsch, Hokanson, Moore, and Whitman disclose the method of claim 34, wherein the search request form comprises:

a user identification and authorization information and a user administration and billing information (requests from users are augmented with identification information that allows the system to track usage of pay services and authorization, Kenner, col. 6, lines 17-26 and col. 24, lines 15-34); and

a search request criteria and a program content type (a request for a particular video clip is a search criteria that specifies the type of content desired, Kenner, col. 16, lines 14-38).

Regarding claim 36, Kenner, Kirsch, Hokanson, Moore, and Whitman disclose the method of claim 35, wherein the user identification and authorization information comprises a current user identification and a user network address (the search requests are made via an ISP, thus includes the IP address of the client terminal, Kenner, col. 20, lines 10-21).

Kenner, Kirsch, Hokanson, Moore, and Whitman fail to disclose the user identification and authorization information comprises an authorization code and password, a public encryption key, a digital rights management parameter, a preferred content format, and a current hardware configuration, wherein the

current hardware configuration is provided to a coder and content formatter that formats the search request form for delivery to a user terminal.

The inclusion of an authorization code and password, a public encryption key, digital rights management parameters, a preferred content format, and a current hardware configuration, are all notoriously well known to a person of ordinary skill in the art as parameters commonly included with content requests in digital communication systems. An authorization code and password provide security against unauthorized use of a user terminal, a public encryption key allow a server system to know which key to use to encrypt content for enhancing security, digital rights management parameters are used by a server system to ensure the digital rights of content providers are protected, a preferred content format allows a server to transmit content in the format that is desired by the requester, and a current hardware configuration allows a server to transmit content in the optimal format for display by the receiver system.

It would have been obvious at the time to a person of ordinary skill in the art to modify the method of Kenner, Kirsch, Hokanson, Moore, and Whitman to include an authorization code and password, a public encryption key, digital rights management parameters, a preferred content format, and a current hardware configuration, wherein the current hardware configuration is provided to a coder and content formatter that formats the search form for delivery to a user terminal, for the benefit of proper and secure delivery of requested content to the

correct user terminal in the preferred and optimized format, as well as protecting against unauthorized use of the user terminal.

10. Claims 37 and 38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kenner, Kirsch, Hokanson, Moore, and Whitman as applied to claim 35 above, and further in view of Nelson et al. (6,243,713, of record) [Nelson].

Regarding claim 37, Kenner, Kirsch, Hokanson, Moore, and Whitman disclose the method of claim 35, but fail to disclose the search criteria are received as a free from question, further comprising applying a search criteria algorithm to parse the free form question, analyzing the parsed free form question to identify and categorize significant terms, and entering the categorized and identified significant terms into the search and request form, wherein a search request processor accesses a lexicon of terms to augment the search request.

In an analogous art, Nelson discloses a search and retrieval method wherein search requests are submitted as a free form question (col. 6, lines 35-65) to which an algorithm is applied to parse the free form question to identify and categorize significant terms (col. 6 line 66 – col. 7 line 10), wherein these terms are used to perform the search in addition to accessing a lexicon of terms to augment the search request (col. 7 lines 11-45), providing the benefit of increasing the likelihood of locating objects of interest to the user (col. 7, lines 11-14 and lines 42-45).

It would have been obvious at the time to a person of ordinary skill in the art to modify the method disclosed by Kenner, Kirsch, Hokanson, Moore, and Whitman to include the search criteria are received as a free from question, further comprising applying a search criteria algorithm to parse the free form question, analyzing the parsed free form question to identify and categorize significant terms, and entering the categorized and identified significant terms into the search and request form, wherein a search request processor accesses a lexicon of terms to augment the search request, as taught by Nelson, for the benefit of increasing the likelihood of locating programming of interest to the user.

Regarding claim 38, Kenner, Kirsch, Hokanson, Moore, Whitman, and Nelson disclose the method of claim 37, wherein Nelson discloses designating additional search parameters based on a type of query word used in the free form question ("tokens" are significant terms in a query, and are cross linked with others to augment a search request, col. 7, lines 11-45).

11. Claims 45 and 48 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kenner, Kirsch, Hokanson, and Moore as applied to claims 44 and 46 above, and further in view of Grooters.

Regarding claim 45, Kenner, Kirsch, Hokanson, and Moore disclose the method of claim 44, but fail to disclose the user profile information includes user provided information.

In an analogous art, Grooters teaches refining searches for programming content using user provided information (col. 6, lines 15-39), providing results specific to a user based on what a user has explicitly provided about themselves.

It would have been obvious at the time to a person of ordinary skill in the art to modify the method disclosed by Kenner, Kirsch, Hokanson, and Moore to include user provided information, as taught by Grooters, for the benefit of providing results specific to a user based on what a user has explicitly provided about themselves.

Regarding claim 48, Kenner, Kirsch, Hokanson, and Moore disclose the method of claim 46, but fail to disclose filtering the search request based on the user's profile, wherein the filtering steps apply a filter comprising program content provider.

In an analogous art, Grooters teaches a programming search method that includes allowing users to specify what types of databases may or may not be covered by the search (col. 6, lines 15-39), granting a user enhanced control over the search.

It would have been obvious at the time to a person of ordinary skill in the art to modify the method disclosed by Kenner, Kirsch, Hokanson, and Moore to

include filtering the search request based on the user's profile, wherein the filtering steps apply a filter comprising program content provider, as taught by Grooters, for the benefit of granting a user enhanced control over the search by including desired sources and excluding undesired sources.

12. Claims 49 and 52 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kenner, Kirsch, Hokanson, and Moore as applied to claim 46 above, and further in view of Nelson.

Regarding claim 49, Kenner, Kirsch, Hokanson, and Moore disclose the method of claim 46, but fail to disclose the search request includes a free form question, and further comprising comparing a supplied search term in the free form question with a database of indexed suggestion keywords, determining a relevance of the supplied search term comprising calculating vector differences of the supplied search term and indexed keywords thereby creating a list of suggestion key words, retrieving a user profile, ranking the suggestion keywords based on the user profile, appending the list of suggestion keywords to the search request form, thereby creating an augmented search request form, routing the augmented search request form to a search engine server, and search content metadata for occurrences of the search criteria.

In an analogous art, Nelson teaches a searching tool wherein search request are submitted in the form of a free form question (col. 6, lines 35-44), including comparing a supplied search term in the free form question with a

database of indexed suggestion keywords (col. 7, lines 11-45), determining a relevance of the supplied search term comprising calculating vector differences of the supplied search term and indexed keywords thereby creating a list of suggestion key words (words that are very similar will have small differences in weight between them, col. 17 lines 25-34 and col. 19 line 66 – col. 20 line 27), retrieving a user profile and ranking the suggestion keywords based on the user profile (col. 16, lines 37-45 and col. 17, lines 11-24), appending the list of suggestion keywords to the search request form (col. 16, lines 6-23), thereby creating an augmented search request form, routing the augmented search request form to a search engine server, and searching content metadata for occurrences of the search criteria (col. 7, lines 46-62). This process increases the likelihood of retrieving content that closely satisfies the user's search request (col. 7, lines 42-45).

It would have been obvious at the time to a person of ordinary skill in the art to modify the method disclosed by Kenner, Kirsch, Hokanson, and Moore to include as the search request a free form question, and further comprising comparing a supplied search term in the free form question with a database of indexed suggestion keywords, determining a relevance of the supplied search term comprising calculating vector differences of the supplied search term and indexed keywords thereby creating a list of suggestion key words, retrieving a user profile, ranking the suggestion keywords based on the user profile, appending the list of suggestion keywords to the search request form, thereby

creating an augmented search request form, routing the augmented search request form to a search engine server, and search content metadata for occurrences of the search criteria, as taught by Nelson, for the benefit of increasing the likelihood of retrieving programming that closely satisfies a user's open ended search request for desired content.

Regarding claim 52, Kenner, Kirsch, Hokanson, and Moore disclose the aggregator of claim 50, and additionally discloses means for constructing a search request form (requests are modified prior to search, Kenner, col. 9, lines 42-54) and means to provide search results to a user (Kenner, col. 16, lines 35-42), but fails to disclose means for suggesting content to supplement the search request.

In an analogous art, Nelson teaches a searching tool wherein search requests are augmented with suggested content (col. 7, lines 11-45), increasing the likelihood of retrieving content that closely satisfies the user's search request (col. 7, lines 42-45).

It would have been obvious at the time to a person of ordinary skill in the art to modify the aggregator of Kenner, Kirsch, Hokanson, and Moore to include means for suggesting content to supplement the search request, as taught by Nelson, for the benefit of increasing the likelihood of retrieving content that closely satisfies a user's open ended search request for desired content.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dominic D. Saltarelli whose telephone number is (571) 272-7302. The examiner can normally be reached on Monday - Friday 9:00am - 6:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Miller can be reached on (571) 272-7353. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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DS

Dominic Saltarelli